

CLAIMS

What is claimed is:

1. A lamellar roof for a roof opening (1) of a motor vehicle comprising at least front and rear lamella sections (L1 - L4) guided in the roof opening so as to be movable between a closed position, in which the roof opening (1) is closed by a planar side-by-side arrangement of said lamella sections, and an open position in which the lamella sections (L1 - L4) are tilted upwardly and moved backwardly into overlapping relationship, a lamella guide mechanism for guiding said lamella sections during movement between said closed and open positions, and including lamella section carriers (T1-T4) and guide carriages (F1 - F5), each lamella carrier being supported on two adjacent guide carriages (F2 and F3), each guide carriage (F2) having a pivot axis (7) for the - in travel direction of the vehicle - rear lamella section carrier (T2) and a, in slide direction displaced, pivot axis (11) for a control rocker (10), which supports a front lamella section carrier (T1) and also the rearwardly adjacent lamella section carrier (T2) and which is coupled to the front lamella section carrier by way of a guide groove extending along the front lamella section carrier (T1) such that said control rocker (10) is movable out of its basic closed position to a roof opening position, in which it

raises the rear edges of said lamella sections to tilt the lamella sections upwardly, and said pivot axis (7) for said rear lamella carrier (T2) being arranged in the rear end area of said guide carriage (F2) and the control rocker (10), which extends from the pivot axis (10) thereof toward the adjacent rear lamella section carrier (T2), being engaged between the pivot axis (7) thereof and the pivot axis (11) of said control rocker (10) on said guide carriage F2 in the guide slot (8) of said front lamella section carrier (T1) and said control rocker (10) projecting, in opening direction, beyond said connection and being supported, in this projecting area, on said lamella carrier T2.

2. A lamellar roof according to claim 1, wherein said control rocker (10) biases, in the closed position of the lamellar roof (4), the - in opening direction of the roof - adjacent front lamella section carrier (T1) toward the guide carriage supporting the control rocker (10).

3. A lamellar roof according to claim 2, wherein, in a closed position of the lamellar roof, said control rocker (10) includes an overlap area to a stop (16) of the longitudinally supported lamella carrier (T1).

4. A lamellar roof according to claim 3, wherein said stop (16) is part of said longitudinally supported lamella carrier (T1).

5. A lamellar roof according to claim 1, wherein, in the open position of the lamellar roof (4), all the guide carriages (F2, F3) moved into engagement with one another are interlocked.

6. A lamellar roof according to claim 5, wherein, for the interlocking of adjacent guide carriages (F2, F3), a locking element (17) is provided which is supported on said guide carriage (F2).

7. A lamellar roof according to claim 6, wherein said locking element is a locking lever (17), which is supported on said guide carriage (F2) and is engageable with the guide carriage which, in opening direction of the roof, is the next adjacent carriage.

8. A lamellar roof according to claim 7, wherein said locking lever (17) is supported in a support area of the guide carriage (F2), which is displaced in closing direction (F) of the roof with respect to an area of the guide carriage (F2) carrying the pivot axis (7) of the rearwardly adjacent lamella section carrier.

9. A lamellar roof according to claim 8, wherein said pivot axes (11) of a control rocker (10) and of a locking lever (17) of the same guide carriage (F2) are arranged next to one another.

10. A lamellar roof according to claim 9, wherein the pivot axes 11 of the control radar (10) and of the locking lever (17) which are disposed on the same guide carriage (F2) are co-axial.

11. A lamellar roof according to claim 7, wherein the control rocker (10) and the locking lever (17) which are arranged on the source guide carriage (F2) extend from their pivot axis (11) in the same direction.

12. A lamellar roof according to claim 7, wherein, for a guide carriage (F2) carrying a locking lever (17), the locking lever (17) is supported in the pivot direction between the spaced engagement surfaces of the, with respect to the guide carriage (F2), front lamella section carrier (T1) and the guide carriage (F3) following in the opening direction of the lamellar roof.

13. A lamellar roof according to claim 12, wherein said locking lever (17) is supported against the front lamella section carrier (T1) of the guide carriage (F2).

14. A lamellar roof according to claim 13, wherein said lamella section carrier T1 has an edge (18) opposite the respective lamella section supported thereon and said edge forms a support edge for said locking lever (17).

15. A lamellar roof according to claim 12, wherein said locking lever (17), which is supported against the guide carriage (F3) next in the opening direction, has a support surface (22) which ends in a reception opening (24).

16. A lamellar roof according to claim 15, wherein said locking lever (17) has a locking hook (21) at its end with the reception opening (24).

17. A lamellar roof according to claim 14, wherein said support edge (18) extending along said guide slot (8) of the lamella carrier (T2) becomes narrower in the opening direction of the lamellar roof (4) and forms there a step (19).

18. A lamellar roof according to claim 17, wherein said step (19) is disposed in a transition to said support edge (18) and is inclined so as to form a ramp.

19. A lamellar roof according to claim 14, wherein said locking lever (17) is biased toward said support edge (18).

20. A lamellar roof according to claim 1, wherein, in the open position, adjacent lamella sections (L1 - L4) of said lamellar roof are supported with respect to another by way of said control rockers (10) of adjacent guide carriages (F2, F3).

21. A lamellar roof according to claim 20, wherein the control rocker (10) engaging the adjacent front lamella section (L2) moves in the open position of the roof into an overlapping engagement positions with the control rocker (10) of the - in opening direction - following control rocker (10).

22. A lamellar roof according to claim 21, wherein the part of said control rocker (10) against which, in the closing direction, the preceding control rocker (10) is supported in the opening direction of the lamellar roof (4), is formed by the part (pin 9) of the control rocker (10) which extends through the guide slot (8) of the lamella section between these control rockers (10).